

AMENDMENTS AND LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for forming an electrical interconnect on an integrated lead suspension or suspension component of the type having a spring metal layer, a conductive lead layer ~~having an upper surface~~ and an insulating layer separating portions of the spring metal and conductive lead layers, including:

forming an aperture through at least the insulating layer and exposing the spring metal layer at an interconnect site;

applying an interconnect mask around the interconnect site, including forming masked portions of the conductive lead layer or unmasked portions of the conductive lead layer at the interconnect site;

electroplating a first conductive material on the spring metal layer at the interconnect site to ~~fill the aperture in the insulating layer with the first conductive material~~ and form a plated interconnect having the physical structure of the material as electroplated, including building up the first conductive material ~~over on~~ on the spring metal layer to a height about equal to or greater than ~~the~~ a surface of the conductive lead layer, wherein the first conductive material does not electroplate onto any unmasked portions of the conductive lead layer until the built up material reaches a thickness at which the conductive material contacts any unmasked portions of the conductive lead layer at the interconnect site; and

removing the interconnect mask.

2. (Previously Presented) The method of claim 1 and further including electroplating a second conductive material on the plated interconnect.

3. (Previously Presented) The method of claim 2 wherein electroplating the second conductive material on the plated interconnect includes electroplating the plated interconnect with non-corrosive metal.

4. (Previously Presented) The method of claim 2 wherein electroplating the second conductive material on the plated interconnect includes electroplating the plated interconnect with gold.

5. (Previously Presented) The method of claim 1 wherein electroplating the first conductive material includes forming a plated nickel or nickel alloy interconnect.

6. (Previously Presented) The method of claim 1 wherein electroplating a first conductive material includes electroplating the first conductive material on the spring metal layer and not in contact with the conductive lead layer to form a plated bond pad interconnect that is electrically isolated from the conductive lead layer.

7. (Previously Presented) The method of claim 1 wherein:
forming an aperture includes forming an aperture through the insulator layer and at least one of the spring metal layer and conductive lead layer to expose portions of the spring metal and conductive lead layers at the interconnect site; and
electroplating the first conductive material includes electroplating the first conductive material on the spring metal layer at the interconnect site to form an electrical interconnect between the spring metal layer and the conductive lead layer, including causing the first conductive material to build up on the spring metal layer, and with continuing build up to reach a thickness at which the first conductive material electroplates onto and builds up on the conductive lead layer.

8. (Canceled)

9. (Previously Presented) The method of claim 7 wherein:
forming an aperture includes forming an aperture through the insulator layer and the
spring metal layer but not the conductive lead layer; and
electroplating the first conductive material includes forming a spring metal side
interconnect.

10. (Previously Presented) The method of claim 7 and further including
electroplating conductive metal on exposed portions of the conductive lead layer at the
interconnect site before forming the spring metal side contact.

11. (Previously Presented) The method of claim 7 wherein:
forming an aperture includes forming an aperture through the insulator layer and the
conductive lead layer but not the spring metal layer; and
electroplating the first conductive material includes forming a conductive lead side
interconnect.

12. (Previously Presented) The method of claim 1 and further including removing
oxide from exposed portions of the spring metal layer at the interconnect site before
electroplating the first conductive material to form the plated interconnect.

13. (Original) The method of claim 12 wherein removing oxide includes:
exposing the interconnect site to a plating metal bath; and
applying current to the interconnect site to perform an anodic clean.

14. – 17. (Canceled)

18. (Withdrawn) In an integrated lead suspension or suspension component of the
type having a conductive spring metal layer, a conductive lead layer and an insulator layer

between at least portions of the spring metal and conductive lead layers, an electrical interconnect between the spring metal and conductive lead layers, including:

- an aperture through the insulator layer and at least one of the spring metal and conductive lead layers at an interconnect site; and
- an electroplated conductive material interconnect extending between both the spring metal layer and the conductive lead layer at the interconnect site.

19. (Withdrawn) The electrical interconnect of claim 18 wherein:

the aperture includes an aperture through the spring metal and insulator layers exposing an interior surface of the conductive lead layer at the interconnect site; and

the electroplated interconnect includes conductive material plated over the spring metal layer and built up to extend into plated electrical contact with the interior surface layer of the conductive lead layer at the interconnect site.

20. (Withdrawn) The electrical interconnect of claim 18 wherein:

the aperture includes an aperture through the conductive lead and insulator layers exposing an interior surface of the spring metal layer at the interconnect site; and

the electroplated interconnect includes conductive material interconnect plated over the interior surface of the spring metal layer and built up to extend into plated electrical contact with the conductive lead layer at the interconnect site.

21. (Withdrawn) In an integrated lead suspension or suspension component of the type having a conductive spring metal layer, a conductive lead layer and an insulator layer between at least portions of the spring metal and conductive lead layers, an electrical bond pad interconnect including an electroplated conductive material pad on the spring metal layer at an interconnect site.

22. (Withdrawn) The bond pad interconnect of claim 21, wherein the conductive material pad is built up on the same side of the spring metal layer as the conductive lead layer and to a height generally equal to a height of the conductive lead layer.

23. (New) The method of claim 1 wherein electroplating the first conductive material includes electroplating the first conductive material on the spring metal layer at the interconnect site to form an electrical interconnect between the spring metal layer and the conductive lead layer, including causing the first conductive material to build up on the spring metal layer, and with continuing build up to reach a thickness at which the first conductive material electroplates onto and builds up on unmasked portions of the conductive lead layer at the interconnect site.